

### Dilution Practice Questions

---

1. What is the final concentration if 75.0 mL of a 3.50 M glucose solution is diluted to a volume of 400.0 mL?
2. How would you prepare 500 mL of 3.0 M HCl using 6.0 M HCl from a stock bottle?
3. A chemical company released 475 L of a 5.50 M solution of a toxic compound into a nearby stream. What volume of water would the pond have to contain to dilute the compound to a safe concentration of 0.35  $\mu\text{mol/L}$ ? ( $1 \mu\text{mol} = 10^{-6} \text{ mol}$ )